APPENDIX

IN THE SPECIFICATION

Please amend the specification as follows.

Please rewrite the paragraph beginning at page 7, line 20, with the following paragraph.

-- According to the invention, in order to solve the above problems, there is provided an approximating apparatus for figure data for approximating shape data to[-]_that of a desired resolution, comprising: evaluating means for evaluating an importance of each of the edges which construct the shape data; edge removing means for removing an unnecessary edge on the basis of a result of the edge evaluation; and vertex position determining means for determining a vertex position after the unnecessary edge was removed. --

Please rewrite the paragraph beginning at page 11, line 14, with the following paragraph.

-- As shown in Fig. 2, the drawing apparatus can be constructed by a computer with a standard structure which comprises: a keyboard 1; a data input device such as floppy disk drive (FDD) 2, magneto_optic disk (MO) drive 3, or the like; a data processing apparatus constructed by a CPU 4, an RAM 5, and the like; an external memory apparatus such as hard disk 6, semiconductor memory 7, or the like; and a display apparatus 8 such as a CRT or the like, and in which those component elements are respectively connected by a bus 9. As an input device, a mouse or the like may also be used. The floppy disk drive 2 and MO drive 3 are also used as data output devices. Further, data can be also supplied from a network such as the internet. The

above structure is an example and the actual drawing apparatus can have various constructions. --

Please rewrite the paragraph beginning at page 13, line 1, with the following paragraph.

-- In step S2, each[-]_edge of the inputted polygon data is evaluated for performing the edge removal. In the edge evaluation in step S2, each edge of the inputted polygon data is converted into a numerical value by a method, which will be described below, and is set to an evaluation value. In step S3, the evaluation values of the edges obtained in step S2 are sorted and the edge having the minimum evaluation value is selected. The processing routine advances to step S4. In step S4, the edge having the minimum evaluation value that was selected in step S3 is removed. --

IN THE CLAIMS (All pending claims are provided hereinbelow)

Please amend the claims as follows.

20. A method of approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework, said framework being composed of line segments drawn between vertices, said method comprising:

evaluating a degree of importance of each line segment of said framework;

removing at least one unnecessary line segment from said framework which is identified based on said evaluation of said degree of importance of each line segment; and

determining a position of a vertex after said unnecessary line segment is removed.

21.   The method of claim 20, wherein said image data defines a 3-dimensional polygonal framework.

22.   The method of claim 20, wherein said evaluating a degree of importance of each line segment is performed by evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

23.   The method of claim 22, wherein said evaluating a degree of importance of each line segment further comprises assigning a line segment a degree of importance in direct proportion to the amount of volume change caused by removal of that line segment.

24.   The method of claim 20, wherein said evaluating a degree of importance of each line segment is performed using a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework wherein said particular line segment is a side of said polygon, and a vector (N) normal to a plane of said polygon.

25.   The method of claim 24,
wherein said evaluating a degree of importance of each line segment further comprises calculating an importance of a particular line segment by $(N \bullet E) \times A$,
wherein E is said vector representing a particular line segment, A is said area of a polygon sided by said particular line segment, and N is said normal vector.

26.   The method of claim 20, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an area of said polygonal framework defined by

said image data is changed by removal of a particular line segment.

27. The method of claim 26, wherein said evaluating a degree of importance of each line segment further comprises assigning a degree of importance to a particular line segment in direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

28. The method of claim 20, wherein said evaluating a degree of importance of each line segment is performed based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

29. The method of claim 28, wherein said evaluating a degree of importance of each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein "$|E|$" is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

30. The method of claim 20, wherein said evaluating a degree of importance of each line segment is performed based on a length of said line segments.

31. The method of claim 30, wherein said evaluating a degree of importance of said line segments further comprises assigning a degree of importance to each line segment in direct proportion to a length of that line segment.

32. The method of claim 20, wherein if two or more line segments are assigned an identical degree of importance, said method further comprises assigning a lowest degree of importance

among said two or more line segments to that line segment of said
two or more line segments with a shortest length.

33.   The method of claim 20, further comprising repeating
said steps of evaluating a degree of importance of each line
segment; removing an unnecessary line segment; and determining a
position of a vertex after said unnecessary line segment is
removed.

34.   The method of claim 20, wherein said evaluating a
degree of importance of each line segment is performed based on
an amount by which an amount of said image data is changed by
removal of a particular line segment.

35.   The method of claim 20, wherein said evaluating a
degree of importance of each line segment is performed based on
importance values assigned by a user to one or more of said line
segments.

36.   The method of claim 35, further comprising specifying
one or more of said line segments as of high importance, wherein
said evaluating a degree of importance of each line segment
further comprises preventing said one or more high importance
line segments from being designated as said unnecessary line
segment.

37. (amended) The method of claim 20, wherein said
determining a position of a vertex after said unnecessary line
segment is removed comprises positioning [a] said vertex at [a]
said position such that a total loss of area between a framework
including said unnecessary line segment and a framework in which
said unnecessary line segment is removed is minimized.

38.   The method of claim 20, wherein said determining a
position of a vertex after said unnecessary line segment is
removed comprises positioning a vertex at a position such that a
loss of area to said framework caused by removal of said
unnecessary line segment is approximately equal for portions of
said framework on opposite sides of said vertex.

39.   The method of claim 20, wherein said determining a
position of a vertex after said unnecessary line segment is
removed comprises positioning said vertex at a position
corresponding to an end of said removed unnecessary line segment.

40.   The method of claim 20, further comprising, generating
an intermediate configuration of said image data by decreasing a
length of said unnecessary line segment prior to said step of
removing said unnecessary line segment.

41.   The method of claim 20, further comprising, generating
an intermediate polygonal framework between an original framework
including said unnecessary line segment and a new framework with
said unnecessary line segment removed.

42.   The method of claim 41, wherein said generating an
intermediate framework comprises locating a vertex an a position
intermediate to a vertex position in said original framework and
a vertex position determined in said step of determining a
position of a vertex after said unnecessary line segment is
removed.

43.   The method of claim 42, wherein said locating a vertex
at an intermediate position comprises using a linear
interpolation on said vertex position in said original framework
and said vertex position determined in said step of determining a

position of a vertex after said unnecessary line segment is removed.

44.   The method of claim 20, further comprising reconfiguring a texture applied to said framework to account for said removing of said unnecessary line segment.

45.   The method of claim 20, wherein said evaluation of a degree of importance of each line segment is based in part on an evaluation of the degree of importance of line segments contiguous to a particular line segment being evaluated.

46.   The method of claim 20, further comprising reconfiguring said framework after said unnecessary line segment has been removed by placing a new vertex at said position identified in said step of determining a position of a vertex.

47.   The method of claim 46, wherein said reconfiguring comprises using said new vertex to replace a previous vertex located at an end of said unnecessary, removed line segment.

76.   A method of approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework formed of polygons to which textures or pictures are applied, said polygons of said framework being composed of line segments connected between vertices, said method comprising:

evaluating a degree of importance of each line segment of said framework;

removing an unnecessary line segment identified by said step of evaluating a degree of importance of each line segment;

reconfiguring said framework to account for said removal of said line segment; and

reconfiguring said textures or pictures applied to said
framework to account for said removal of said line segment.

77.   The method of claim 76, wherein said reconfiguring the
textures or pictures applied to the framework is preformed
altering an association between a vertex of said unnecessary line
segment and any of said textures or pictures.

78.   The method of claim 76, wherein:
said reconfiguring of said framework comprises replacing two
vertices of said framework, between which said unnecessary,
removed line segment had been connected, with a single new
vertex; and
said reconfiguring the textures or pictures applied to the
framework comprises determining a new position on said textures
or pictures corresponding to a position of said single new vertex
in said framework.

79.   The method of claim 78, wherein said reconfiguring of
said textures or pictures applied to the framework comprises
determining said new position by interpolation between two points
on the textures or pictures which correspond to the unnecessary
line segment.

80.   The method of claim 79, wherein said interpolation is a
linear interpolation.

81.   The method of claim 76, wherein said evaluating a
degree of importance of each line segment of said framework
further comprises preventing any line segment existing on an
outline of any of said textures or pictures from being designated
as said unnecessary line segment.

82. The method of claim 76, wherein said evaluating a degree of importance of each line segment of said framework further comprises preventing any line segment, which exists on an outline of any of said textures or pictures from being designated as said unnecessary line segment if a change in an area of said texture or picture resulting from removal of that line segment exceeds a predetermined value.

83. The method of claim 82, wherein said area change amount after the line segment removal is obtained on the basis of a calculation of sum of results of an equation $|(N \bullet E) \times L|$ at line segments corresponding to the boundary lines of the texture or picture existing before and after the line segment to be removed, wherein "E" is representing that line segment, "L" is a length of line segment corresponding to the boundary lines of the texture or picture, "N" is a normal vector of said line segments, "$\bullet$" is a inner product, and "$\times$" is a product.

84. The method of claim 76, wherein said image data defines a 3-dimensional polygonal framework.

85. The method of claim 76, wherein said evaluating a degree of importance of each line segment is performed by evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

86. The method of claim 85, wherein said evaluating a degree of importance of each line segment further comprises assigning a line segment a degree of importance in direct proportion to the amount of volume change caused by removal of that line segment.

87.   The method of claim 76, wherein said evaluating a
degree of importance of each line segment is performed using a
vector (E) which represents a particular line segment, an area
(A) of a polygon within said polygonal framework wherein said
particular line segment is a side of said polygon, and a vector
(N) normal to a plane of said polygon.

88.   The method of claim 87,
    wherein said evaluating a degree of importance of each line
segment further comprises calculating an importance of a
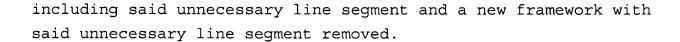particular line segment by $(N \bullet E) \times A$,
    wherein E is said vector representing a particular line
segment, A is said area of a polygon sided by said particular
line segment, and N is said normal vector.

89.   The method of claim 76, wherein said evaluating a
degree of importance of each line segment is performed based on
an amount by which an area of said polygonal framework defined by
said image data is changed by removal of a particular line
segment.

90.   The method of claim 89, wherein said evaluating a
degree of importance of each line segment further comprises
assigning a degree of importance to a particular line segment in
direct proportion to said amount by which said area of said
polygonal framework is changed by removal of that line segment.

91.   The method of claim 76, wherein said evaluating a
degree of importance of each line segment is performed based on a
length of a particular line segment and an area of a polygon
within said polygonal framework of which said particular line
segment is a side.

92. The method of claim 91, wherein said evaluating a degree of importance of each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein "$|E|$" is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

93. The method of claim 76, wherein said evaluating a degree of importance of each line segment is performed based on a length of said line segments.

94. The method of claim 93, wherein said evaluating a degree of importance of said line segments further comprises assigning a degree of importance to each line segment in direct proportion to a length of that line segment.

95. The method of claim 76, wherein if two or more line segments are assigned an identical degree of importance, said method further comprises assigning a lowest degree of importance among said two or more line segments to that line segment of said two or more line segments with a shortest length.

96. The method of claim 76, further comprising repeating said steps of evaluating a degree of importance of each line segment; removing an unnecessary line segment; reconfiguring said framework; and reconfiguring said textures or pictures.

97. The method of claim 76, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an amount of said image data is changed by removal of a particular line segment.

98. The method of claim 76, wherein said evaluating a degree of importance of each line segment is performed based on

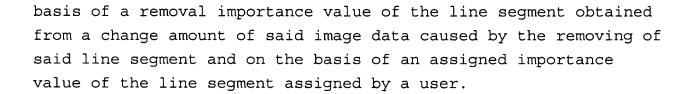importance values assigned by a user to one or more of said line segments.

99. The method of claim 98, further comprising specifying one or more of said line segments as of high importance, wherein said evaluating a degree of importance of each line segment further comprises preventing said one or more high importance line segments from being designated as said unnecessary line segment.

100. The method of claim 76, wherein said reconfiguring said framework comprises positioning a vertex at a position such that a total loss of area between a framework including said unnecessary line and a framework in which said unnecessary line segment is removed is minimized.

101. The method of claim 76, wherein said reconfiguring said framework comprises positioning a vertex at a position such that a loss of area to said framework caused by removal of said unnecessary line segment is approximately equal for portions of said framework on opposite sides of said vertex.

102. The method of claim 76, wherein said reconfiguring said framework comprises positioning a new vertex at a position corresponding to an end of said removed unnecessary line segment.

103. The method of claim 76, further comprising, generating an intermediate configuration of said image data by decreasing a length of said unnecessary line segment prior to said step of removing said unnecessary line segment.

104. The method of claim 76, further comprising, generating an intermediate polygonal framework between an original framework

including said unnecessary line segment and a new framework with
said unnecessary line segment removed.

105.   The method of claim 104, wherein said generating an
intermediate framework comprises locating a vertex an a position
intermediate to a vertex position in said original framework and
a vertex position determined in said step of determining a
position of a vertex after said unnecessary line segment is
removed.

106. The method of claim 105, wherein said locating a vertex
at an intermediate position comprises using a linear
interpolation on said vertex position in said original framework
and said vertex position determined in said step of determining a
position of a vertex after said unnecessary line segment is
removed.

107. The method of claim 76, wherein said evaluating a
degree of importance of each line segment is based in part on an
evaluation of a degree of importance of line segments contiguous
to a particular line segment being evaluated.

108. The method of claim 76, wherein said reconfiguring said
framework comprises using a new vertex to replace a previous
vertex located at an end of said unnecessary, removed line
segment.

Please cancel claims 137 to 150, 154, 157, 159, 166, and 167
without prejudice or disclaimer of their underlying subject
matter.

151. (amended) The method of claim 20, [137,] wherein said
evaluating a degree of said line segment is performed on the

basis of a removal importance value of the line segment obtained from a change amount of said image data caused by the removing of said line segment and on the basis of an assigned importance value of the line segment assigned by a user.

152. (amended) The method of claim 151, [151.] wherein said evaluating a degree of importance of the line segment decides that the degree of importance of said line segment is small, if said removal importance value and said assigned importance value are both small.

153. The method of claim 151, wherein said assigned importance value is a removing order of said line segments.

155. (amended) The method of claim 36, [154,] wherein said specifying the at least one line segment as of high importance is performed by a user.

156. (amended) The method of claim 36, [154,] wherein said specifying the at least one line segment as of high importance specifies a portion where more than two image data are adjacent.

158. (amended) The method of claim 37, [157,] wherein when the shape of the portion [where] that includes said [removal] unnecessary line segment is a concave or convex shape, said vertex is [decided] positioned [at a position] where [a] said total loss of area [between said original framework and said reconfigured framework] is minimized.

160. (amended) The method of claim 38, [159,] wherein when the shape of the portion where said [removal] unnecessary line segment is a S-character shape, said vertex is arranged at a position where a loss of area between said original framework and said reconfigured framework is equal on both sides of said

vertex.

161. (amended) The method of claim 20, [137,] wherein said determining a position of said vertex determines the vertex at a position of one of the vertices of the removal line segment.

162. (amended) The method of claim 20, [137,] further comprising, generating an intermediate configuration of said image data by decreasing a length of said unnecessary line segment.

163. (amended) The method of claim 20, [137,] further comprising, generating a[n] framework at an intermediate layer between [said] an original framework which is the polygonal framework before said unnecessary line segment is removed[ing] and [said] a reconfigured framework which is the polygonal framework after said unnecessary line segment is removed[ing] by determining a position of vertices in the intermediate layer on the basis of the relation of the position of said vertices [position] between said original framework and said reconfigured framework.

164. (amended) The method of claim 163, said position of said vertices at said intermediate layer is determined by the interpolation of said position of said vertices [position of] in said original framework and said reconfigured framework.

165. The method of claim 164, said interpolation is a linear interpolation.

168. (amended) The method of claim 20, [137,] wherein said removing of said unnecessary line segment removes either one of two vertices constructing the unnecessary line segment; and wherein said determining of a position of said vertex determines

the shift amount of [shift] the vertex which is constructing the
unnecessary line segment and not removed on said removing of said
unnecessary line segment.

     Please cancel claims 169-178 without prejudice or disclaimer
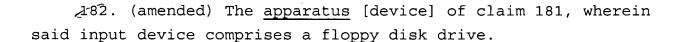of their underlying subject matter.

     179. (amended) The method of claim 76, [171,] wherein said
reconfiguring said textures or pictures applied to said framework
decides a new position of the corresponding point on said
textures or pictures where an area change amount of said textures
or pictures to be influenced by the approximation lies within a
predetermined range.

     180. (amended) An apparatus [device] for use with a display
device that approximates an image by decreasing an amount of
image data used to create the image, wherein said image data
defines a polygonal framework, said framework being composed of
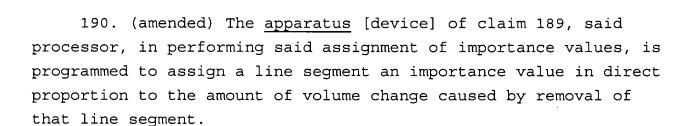line segments drawn between vertices, said device comprising:
          a memory unit for storing said image data; and
          a processor connected to said memory unit, wherein said
processor is programmed to:
               (a) assign an importance value to each line
               segment of said framework;
               (b) remove from said framework that line segment
               having a lowest importance value; and
               (c) reconfigure said framework to account for said
               removal of said line segment having said lowest
               importance value.

     181. (amended) The apparatus [device] of claim 180, further
comprising an input device inputting said image data to said
processor for storage in said memory unit.

182. (amended) The <u>apparatus</u> [device] of claim 181, wherein said input device comprises a floppy disk drive.

183. (amended) The <u>apparatus</u> [device] of claim 181, wherein said input device comprises a magneto-optical disk drive.

184. (amended) The <u>apparatus</u> [device] of claim 180, further comprising a user input device for inputting data to said processor.

185. (amended) The <u>apparatus</u> [device] of claim 184, wherein said user input device comprises a keyboard.

186. (amended) The <u>apparatus</u> [device] of claim 180, wherein said processor is further programmed to reconfigure texture and pictures applied to said framework to account for removal of said line segment.

187. (amended) The <u>apparatus</u> [device] of claim 180, said processor, in performing said reconfiguration of said framework, is programmed to replace two vertices of said framework, between which said removed line segment had been connected, with a single new vertex.

188. (amended) The <u>apparatus</u> [device] of claim 180, wherein said image data defines a 3-dimensional polygonal framework.

189. (amended) The <u>apparatus</u> [device] of claim 180, said processor, in performing said assignment of importance values, is programmed to evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.
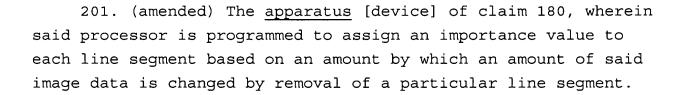
190. (amended) The apparatus [device] of claim 189, said processor, in performing said assignment of importance values, is programmed to assign a line segment an importance value in direct proportion to the amount of volume change caused by removal of that line segment.

191. (amended) The apparatus [device] of claim 180, said processor, in performing said assignment of importance values, is programmed to use a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework, wherein said particular line segment is a side of said polygon, and a vector (N) normal to a plane of said polygon.

192. (amended) The apparatus [device] of claim 191,
wherein said processor assigns an importance value to each line segment by calculating an importance of a particular line segment by $(N \bullet E) \times A$,
wherein E is said vector representing a particular line segment, A is said area of a polygon sided by said particular line segment, and N is said normal vector.

193. (amended) The apparatus [device] of claim 180, said processor, in performing said assignment of importance values, is programmed to determine an amount by which an area of said polygonal framework defined by said image data is changed by removal of a particular line segment.

194. (amended) The apparatus [device] of claim 193, wherein said processor assigns an importance value to a particular line segment in direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

195. (amended) The apparatus [device] of claim 180, wherein
said processor, in performing said assignment of importance
values, assigns an importance value to each line segment based on
a length of a particular line segment and an area of a polygon
within said polygonal framework of which said particular line
segment is a side.

196. (amended) The apparatus [device] of claim 180, wherein
said processor assigns an importance value to each line segment
by calculating a sum of results of an equation $|E|$ x A for
polygons sided by said particular line segment, wherein "$|E|$" is
length of that line segment, "A" is an area of a polygon sided by
said particular line segment.

197. (amended) The apparatus [device] of claim 180, wherein
said processor, in performing said assignment of importance
values, is programmed to assign an importance value to each line
segment based on a length of said line segments.

198. (amended) The apparatus [device] of claim 182, wherein
said processor assigns an importance value to each line segment
in direct proportion to a length of that line segment.

199. (amended) The apparatus [device] of claim 180, wherein
if two or more line segments are assigned an identical degree of
importance, said processor assigns a lowest degree of importance
among said two or more line segments to that line segment of said
two or more line segments with a shortest length.

200. (amended) The apparatus [device] of claim 180, wherein
said processor is further programmed to repeat said assignment of
an importance value to each line segment; said removal of that
line segment with the lowest importance value; and said
reconfiguration said framework.

201. (amended) The apparatus [device] of claim 180, wherein said processor is programmed to assign an importance value to each line segment based on an amount by which an amount of said image data is changed by removal of a particular line segment.

202. (amended) The apparatus [device] of claim 180, wherein said processor is programmed to assign an importance value to each line segment based on importance values assigned by a user to one or more of said line segments.

203. (amended) The apparatus [device] of claim 180, wherein said processor is programmed to reconfigure said framework by positioning a new vertex at a position such that a total loss of area between a framework including said line segment having said lowest importance value and a framework containing said new vertex and in which said lowest-importance-value line segment is removed is minimized.

204. (amended) The apparatus [device] of claim 180, wherein said processor is programmed to reconfigure said framework by positioning a new vertex at a position such that a loss of area to said framework caused by removal of said lowest-importance-value line segment is approximately equal for portions of said framework on opposite sides of said new vertex.

205. (amended) The apparatus [device] of claim 180, wherein said processor is programmed to reconfigure said framework by positioning a vertex at a position corresponding to an end of said removed lowest-importance-value line segment.

206. (amended) The apparatus [device] of claim 180, wherein said processor is programmed to generate an intermediate

configuration of said image data by decreasing a length of said lowest-importance-value line segment.

207. (amended) The _apparatus_ [device] of claim 180, wherein said processor is programmed to reconfigure said framework by generating a new vertex to replace a previous vertex located at an end of said removed, lowest-importance-value line segment.
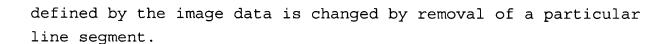
Please add the following new claims.

208. (new) A method of approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework, said framework being composed of line segments drawn between vertices, said method comprising:

assigning an importance value to each line segment of said framework;

removing from said framework that line segment having a lowest importance value; and

reconfiguring said framework to account for said removal of said line segment having said lowest importance value.

209. (new) The method of claim 208, wherein said reconfiguring further comprises replacing two vertices of said framework, between which said removed line segment had been connected, with a single new vertex.

210. (new) The method of claim 208, wherein said image data defines a 3-dimensional polygonal framework.

211. (new) The method of claim 208, wherein said assigning an importance value to each line segment is performed by evaluating an amount by which a volume of the polygonal framework
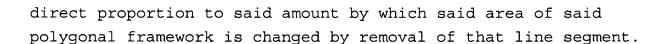
defined by the image data is changed by removal of a particular
line segment.

212. (new) The method of claim 211, wherein said assigning
an importance value to each line segment further comprises
assigning a line segment an importance value in direct proportion
to the amount of volume change caused by removal of that line
segment.

213. (new) The method of claim 208, wherein said assigning
an importance value to each line segment is performed using a
vector (E) which represents a particular line segment, an area
(A) of a polygon within said polygonal framework, wherein said
particular line segment is a side of said polygon, and a vector
(N) normal to a plane of said polygon.
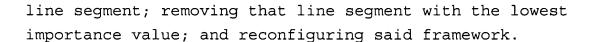
214. (new) The method of claim 213,
wherein said assigning an importance value to each line
segment further comprises calculating an importance of a
particular line segment by $(N \bullet E) \times A$,
wherein E is said vector representing a particular line
segment, A is said area of a polygon sided by said particular
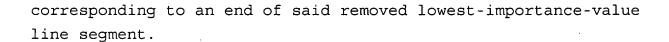line segment, and N is said normal vector.

215. (new) The method of claim 208, wherein said assigning
an importance value to each line segment is performed based on an
amount by which an area of said polygonal framework defined by
said image data is changed by removal of a particular line
segment.

216. (new) The method of claim 215, wherein said assigning
an importance value to each line segment further comprises
assigning an importance value to a particular line segment in

direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

217. (new) The method of claim 208, wherein said assigning an importance value to each line segment is performed based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

218. (new) The method of claim 217, wherein said assigning an importance value to each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein "$|E|$" is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

219. (new) The method of claim 208, wherein said assigning an importance value to each line segment is performed based on a length of said line segments.

220. (new) The method of claim 219, wherein said assigning an importance value to each of said line segments further comprises assigning an importance value to each line segment in direct proportion to a length of that line segment.

221. (new) The method of claim 208, wherein if two or more line segments are assigned an identical degree of importance, said method further comprises assigning a lowest degree of importance among said two or more line segments to that line segment of said two or more line segments with a shortest length.

222. (new) The method of claim 208, further comprising repeating said steps of assigning an importance value to each

line segment; removing that line segment with the lowest importance value; and reconfiguring said framework.

223. (new) The method of claim 208, wherein said assigning an importance value to each line segment is performed based on an amount by which an amount of said image data is changed by removal of a particular line segment.

224. (new) The method of claim 208, wherein said assigning an importance value to each line segment is performed based on importance values assigned by a user to one or more of said line segments.

225. (new) The method of claim 224, further comprising specifying one or more of said line segments as of high importance, wherein assigning an importance value to each line segment further comprises preventing said one or more high importance line segments from being removed.

226. (new) The method of claim 208, wherein said reconfiguring comprises positioning a new vertex at a position such that a total loss of area between a framework including said line segment having said lowest importance value and a framework comprising said new vertex and in which said lowest-importance-value line segment is removed is minimized.

227. (new) The method of claim 208, wherein said reconfiguring comprises positioning a vertex at a position such that a loss of area to said framework caused by removal of said lowest-importance-value line segment is approximately equal for portions of said framework on opposite sides of said vertex.

228. (new) The method of claim 208, wherein said reconfiguring comprises positioning a vertex at a position

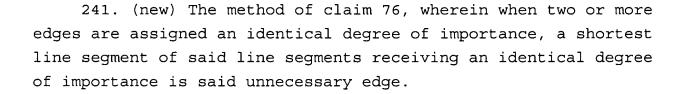corresponding to an end of said removed lowest-importance-value line segment.

229. (new) The method of claim 208, further comprising, generating an intermediate configuration of said image data by decreasing a length of said lowest-importance-value line segment prior to said step of removing said lowest-importance-value line segment.

230. (new) The method of claim 208, further comprising, generating an intermediate polygonal framework between an original framework including said lowest-importance-value line segment and a new reconfigured framework with said lowest-importance-value line segment removed.

231. (new) The method of claim 41, wherein said generating an intermediate framework comprises locating a vertex an a position intermediate to a vertex position in said original framework and a new vertex position determined in said step of reconfiguring.

232. (new) The method of claim 231, wherein said locating a vertex at an intermediate position comprises using a linear interpolation on said vertex position in said original framework and said new vertex position determined in said step of reconfiguring.

233. (new) The method of claim 208, further comprising reconfiguring a texture applied to said framework to account for said removing of said lowest-importance-value line segment.

234. (new) The method of claim 208, wherein said assigning an importance value to each line segment is done in accordance

with an assigned importance value of line segments contiguous to
a particular line segment being evaluated.

235. (new) The method of claim 208, wherein said
reconfiguring comprises using a new vertex to replace a previous
vertex located at an end of said removed, lowest-importance-value
line segment.

236. (new) The method of claim 76, wherein said evaluating a
degree of importance of the line segment is decided that the
degree of importance of said line segment is small as said change
amount of said volume is small.

237. (new) The method of claim 76, wherein said evaluating a
degree of importance of the line segment is performed on the
basis of a vector which is representing said line segment, an
area of a plane of said image data which is composed by at least
one of said vertices of said line segment, and a normal vector at
said plane.

238. (new) The method of claim 76, wherein said evaluating
of degree of importance of the line segment is performed on the
basis of a change amount of area of the image specified by said
image data when said line segment is removed.

239. (new) The method of claim 238, wherein said evaluating
a degree of importance of the line segment is decided that the
degree of importance of said line segment is small as said change
amount of said area is small.

240. (new) The method of claim 76, wherein said evaluating a
degree of importance of the line segment is decided that the
degree of importance of said line segment is small as said length
of said line segment is short.

241. (new) The method of claim 76, wherein when two or more edges are assigned an identical degree of importance, a shortest line segment of said line segments receiving an identical degree of importance is said unnecessary edge.

242. (new) The method of claim 76, further comprising repeating the step of said evaluating a degree of importance of the line segment, the step of said removing said unnecessary line segment, and the step of said determining said position of said vertex after said unnecessary line segment is removed.

243. (new) The method of claim 76, wherein said evaluating a degree of said line segment is performed on the basis of a removal importance value of the line segment obtained from a change amount of said image data caused by the removing of said line segment and on the basis of an assigned importance value of the line segment assigned by a user.

244. (new) The method of claim 243, wherein said evaluating a degree of importance of the line segment decides that the degree of importance of said line segment is small, if said removal importance value and said assigned importance value are both small.

245. (new) The method of claim 243, wherein said assigned importance value is a removing order of said line segments.

246. (new) The method of claim 76, further comprising specifying at least one said line segment as of high importance, wherein said evaluating a degree of importance of said at least one line segment further comprises preventing said at least one high importance line segment from being designated as said unnecessary line segment.

247. (new) The method of claim 246, wherein said specifying the at least one line segment as of high importance is performed by a user.

248. (new) The method of claim 246, wherein said specifying the at least one line segment as of high importance specifies a portion where more than two image data are adjacent.

249. (new) The method of claim 76, wherein said vertex is decided at a position where a total loss of area between the original framework which is the framework before line segment removing and the reconfigured framework which is the framework after said line segment removing is minimized.

250. (new) The method of claim 249, wherein when the shape of the portion where said removal line segment is a concave or convex shape, said vertex is decided at a position where a total loss of area between said original framework and said reconfigured framework is minimized.

251. (new) The method of claim 76, wherein said vertex is decided at a position where a loss of area between the original framework which is the framework before line segment removing and the reconfigured framework which is the framework after line segment removing is equal on both sides of said vertex.

252. (new) The method of claim 251, wherein when the shape of the portion where said removal line segment is a S-character shape, said vertex is arranged at a position where a loss of area between said original framework and said reconfigured framework is equal on both sides of said vertex.

253. (new) The method of claim 76, wherein said determining

a position of said vertex determines the vertex at a position of one of the vertices of the removal line segment.

254. (new) The method of claim 76, further comprising, generating an intermediate configuration of said image data by decreasing a length of said unnecessary line segment.

255. (new) The method of claim 76, further comprising, generating an framework at intermediate layer between said original framework which is the framework before line segment removing and said reconfigured framework which is the framework after line segment removing by determining a position of vertices in the intermediate layer on the basis of the relation of vertices position between said original framework and said reconfigured framework.

256. (new) The method of claim 76, further comprising reconfiguring a texture applied to said framework to account for said removing of said unnecessary line segment.

257. (new) The method of claim 76, wherein said evaluation of degree of importance of the line segment is performed on the basis of an evaluation value of said line segment and evaluation values of peripheral line segments.

258. (new) The method of claim 76, wherein said removing of unnecessary line segment removes either one of two vertices constructing the unnecessary line segment; and
said determining of a position of vertex determines amount of shift the vertex which is constructing the unnecessary line segment and not removed on said removing of unnecessary line segment.

259. (new) An apparatus for approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework, said framework being composed of line segments drawn between vertices, said apparatus comprising:

a processing apparatus for:

evaluating a degree of importance of each line segment of said framework;

removing at least one unnecessary line segment from said framework which is identified based on said evaluation of said degree of importance of each line segment; and

determining a position of a vertex after said unnecessary line segment is removed.

260. (new) The apparatus of claim 259, wherein said image data defines a 3-dimensional polygonal framework.

261. (new) The apparatus of claim 259, wherein said evaluating a degree of importance of each line segment is performed by evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

262. (new) The apparatus of claim 261, wherein said evaluating a degree of importance of each line segment further comprises assigning a line segment a degree of importance in direct proportion to the amount of volume change caused by removal of that line segment.

263. (new) The apparatus of claim 259, wherein said evaluating a degree of importance of each line segment is performed using a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework

wherein said particular line segment is a side of said polygon,
and a vector (N) normal to a plane of said polygon.

264. (new) The apparatus of claim 263,
wherein said evaluating a degree of importance of each line
segment further comprises calculating an importance of a
particular line segment by (N • E) x A,
wherein E is said vector representing a particular line
segment, A is said area of a polygon sided by said particular
line segment, and N is said normal vector.

265. (new) The apparatus of claim 259, wherein said
evaluating a degree of importance of each line segment is
performed based on an amount by which an area of said polygonal
framework defined by said image data is changed by removal of a
particular line segment.

266. (new) The apparatus of claim 265, wherein said
evaluating a degree of importance of each line segment further
comprises assigning a degree of importance to a particular line
segment in direct proportion to said amount by which said area of
said polygonal framework is changed by removal of that line
segment.

267. (new) The apparatus of claim 259, wherein said
evaluating a degree of importance of each line segment is
performed based on a length of a particular line segment and an
area of a polygon within said polygonal framework of which said
particular line segment is a side.

268. (new) The apparatus of claim 267, wherein said
evaluating a degree of importance of each line segment further
comprises calculating a sum of results of an equation |E| x A for

polygons sided by said particular line segment, wherein "|E|" is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

269. (new) The apparatus of claim 259, wherein said evaluating a degree of importance of each line segment is performed based on a length of said line segments.

270. (new) The apparatus of claim 269, wherein said evaluating a degree of importance of said line segments further comprises assigning a degree of importance to each line segment in direct proportion to a length of that line segment.

271. (new) The apparatus of claim 259, wherein if two or more line segments are assigned an identical degree of importance, said processing apparatus assigns a lowest degree of importance among said two or more line segments to that line segment of said two or more line segments with a shortest length.

272. (new) The apparatus of claim 259, wherein said processing apparatus repeats said evaluating a degree of importance of each line segment; said removing an unnecessary line segment; and said determining a position of a vertex after said unnecessary line segment is removed.

273. (new) The apparatus of claim 259, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an amount of said image data is changed by removal of a particular line segment.

274. (new) The apparatus of claim 259, wherein said evaluating a degree of importance of each line segment is performed based on importance values assigned by a user to one or more of said line segments.

275. (new) The apparatus of claim 274, said processing apparatus specifies one or more of said line segments as of high importance, wherein said evaluating a degree of importance of each line segment further comprises preventing said one or more high importance line segments from being designated as said unnecessary line segment.

276. (new) The apparatus of claim 259, wherein said determining a position of a vertex after said unnecessary line segment is removed comprises positioning said vertex at said position such that a total loss of area between a framework including said unnecessary line segment and a framework in which said unnecessary line segment is removed is minimized.

277. (new) The apparatus of claim 259, wherein said determining a position of a vertex after said unnecessary line segment is removed comprises positioning a vertex at a position such that a loss of area to said framework caused by removal of said unnecessary line segment is approximately equal for portions of said framework on opposite sides of said vertex.

278. (new) The apparatus of claim 259, wherein said determining a position of a vertex after said unnecessary line segment is removed comprises positioning said vertex at a position corresponding to an end of said removed unnecessary line segment.

279. (new) The apparatus of claim 259, said processing apparatus generates an intermediate configuration of said image data by decreasing a length of said unnecessary line segment prior to said step of removing said unnecessary line segment.

280. (new) The apparatus of claim 259, said processing apparatus generates an intermediate polygonal framework between an original framework including said unnecessary line segment and a new framework with said unnecessary line segment removed.

281. (new) The apparatus of claim 280, wherein said generating an intermediate framework comprises locating a vertex an a position intermediate to a vertex position in said original framework and a vertex position determined in said step of determining a position of a vertex after said unnecessary line segment is removed.

282. (new) The apparatus of claim 281, wherein said locating a vertex at an intermediate position comprises using a linear interpolation on said vertex position in said original framework and said vertex position determined in said determining a position of a vertex after said unnecessary line segment is removed.

283. (new) The apparatus of claim 259, said processing apparatus reconfigures a texture applied to said framework to account for said removing of said unnecessary line segment.

284. (new) The apparatus of claim 259, wherein said evaluation of a degree of importance of each line segment is based in part on an evaluation of the degree of importance of line segments contiguous to a particular line segment being evaluated.

285. (new) The apparatus of claim 259, said processing apparatus reconfigures said framework after said unnecessary line segment has been removed by placing a new vertex at said position identified in said step of determining a position of a vertex.

286. (new) The apparatus of claim 285, wherein said
reconfiguring comprises using said new vertex to replace a
previous vertex located at an end of said unnecessary, removed
line segment.

287. An apparatus for approximating an image by decreasing
an amount of image data used to create the image, wherein said
image data defines a polygonal framework formed of polygons to
which textures or pictures are applied, said polygons of said
framework being composed of line segments connected between
vertices, said apparatus comprising:
    a processing apparatus for:
        evaluating a degree of importance of each line segment
of said framework;
        removing an unnecessary line segment identified by said
step of evaluating a degree of importance of each line segment;
        reconfiguring said framework to account for said
removal of said line segment; and
        reconfiguring said textures or pictures applied to said
framework to account for said removal of said line segment.

288. (new) The apparatus of claim 287, wherein said
reconfiguring the textures or pictures applied to the framework
is preformed altering an association between a vertex of said
unnecessary line segment and any of said textures or pictures.

289. (new) The apparatus of claim 287, wherein:
    said reconfiguring of said framework comprises replacing two
vertices of said framework, between which said unnecessary,
removed line segment had been connected, with a single new
vertex; and
    said reconfiguring the textures or pictures applied to the
framework comprises determining a new position on said textures

or pictures corresponding to a position of said single new vertex
in said framework.

290. (new) The apparatus of claim 78, wherein said
reconfiguring of said textures or pictures applied to the
framework comprises determining said new position by
interpolation between two points on the textures or pictures
which correspond to the unnecessary line segment.

291. (new) The apparatus of claim 289, wherein said
interpolation is a linear interpolation.

292. (new) The apparatus of claim 287, wherein said
evaluating a degree of importance of each line segment of said
framework further comprises preventing any line segment existing
on an outline of any of said textures or pictures from being
designated as said unnecessary line segment.

293. (new) The apparatus of claim 287, wherein said
evaluating a degree of importance of each line segment of said
framework further comprises preventing any line segment, which
exists on an outline of any of said textures or pictures from
being designated as said unnecessary line segment if a change in
an area of said texture or picture resulting from removal of that
line segment exceeds a predetermined value.

294. (new) The apparatus of claim 293, wherein said area
change amount after the line segment removal is obtained on the
basis of a calculation of sum of results of an equation $|(N \bullet E) \times L|$
at line segments corresponding to the boundary lines of the
texture or picture existing before and after the line segment to
be removed, wherein "E" is representing that line segment, "L" is
a length of line segment corresponding to the boundary lines of

the texture or picture, "N" is a normal vector of said line segments, "•" is a inner product, and "×" is a product.

295. (new) The apparatus of claim 287, wherein said image data defines a 3-dimensional polygonal framework.

296. (new) The apparatus of claim 287, wherein said evaluating a degree of importance of each line segment is performed by evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

297. (new) The apparatus of claim 85, wherein said evaluating a degree of importance of each line segment further comprises assigning a line segment a degree of importance in direct proportion to the amount of volume change caused by removal of that line segment.

298. (new) The apparatus of claim 287, wherein said evaluating a degree of importance of each line segment is performed using a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework wherein said particular line segment is a side of said polygon, and a vector (N) normal to a plane of said polygon.

299. (new) The apparatus of claim 298,
wherein said evaluating a degree of importance of each line segment further comprises calculating an importance of a particular line segment by $(N \bullet E) \times A$,
wherein E is said vector representing a particular line segment, A is said area of a polygon sided by said particular line segment, and N is said normal vector.

300. (new) The apparatus of claim 287, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an area of said polygonal framework defined by said image data is changed by removal of a particular line segment.

301. (new) The apparatus of claim 300, wherein said evaluating a degree of importance of each line segment further comprises assigning a degree of importance to a particular line segment in direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

302. (new) The apparatus of claim 287, wherein said evaluating a degree of importance of each line segment is performed based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

303. (new) The apparatus of claim 302, wherein said evaluating a degree of importance of each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein "$|E|$" is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

304. (new) The apparatus of claim 287, wherein said evaluating a degree of importance of each line segment is performed based on a length of said line segments.

305. (new) The apparatus of claim 304, wherein said evaluating a degree of importance of said line segments further comprises assigning a degree of importance to each line segment in direct proportion to a length of that line segment.

306. (new) The apparatus of claim 287, wherein if two or more line segments are assigned an identical degree of importance, said processing apparatus assigns a lowest degree of importance among said two or more line segments to that line segment of said two or more line segments with a shortest length.

307. (new) The apparatus of claim 287, said processing apparatus repeats said steps of evaluating a degree of importance of each line segment; removing an unnecessary line segment; reconfiguring said framework; and reconfiguring said textures or pictures.

308. (new) The apparatus of claim 287, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an amount of said image data is changed by removal of a particular line segment.

309. (new) The apparatus of claim 287, wherein said evaluating a degree of importance of each line segment is performed based on importance values assigned by a user to one or more of said line segments.

310. (new) The apparatus of claim 309, said processing apparatus specifies one or more of said line segments as of high importance, wherein said evaluating a degree of importance of each line segment further comprises preventing said one or more high importance line segments from being designated as said unnecessary line segment.

311. (new) The apparatus of claim 287, wherein said reconfiguring said framework comprises positioning a vertex at a position such that a total loss of area between a framework

including said unnecessary line and a framework in which said unnecessary line segment is removed is minimized.

312. (new) The apparatus of claim 287, wherein said reconfiguring said framework comprises positioning a vertex at a position such that a loss of area to said framework caused by removal of said unnecessary line segment is approximately equal for portions of said framework on opposite sides of said vertex.

313. (new) The apparatus of claim 287, wherein said reconfiguring said framework comprises positioning a new vertex at a position corresponding to an end of said removed unnecessary line segment.

314. (new) The apparatus of claim 287, said processing apparatus generates an intermediate configuration of said image data by decreasing a length of said unnecessary line segment prior to said step of removing said unnecessary line segment.

315. (new) The apparatus of claim 287, said processing apparatus generates an intermediate polygonal framework between an original framework including said unnecessary line segment and a new framework with said unnecessary line segment removed.

316. (new) The apparatus of claim 315, wherein said generating an intermediate framework comprises locating a vertex an a position intermediate to a vertex position in said original framework and a vertex position determined in said step of determining a position of a vertex after said unnecessary line segment is removed.

317. (new) The apparatus of claim 316, wherein said locating a vertex at an intermediate position comprises using a linear interpolation on said vertex position in said original framework

and said vertex position determined in said determining a
position of a vertex after said unnecessary line segment is
removed.

318. (new) The apparatus of claim 287, wherein said
evaluating a degree of importance of each line segment is based
in part on an evaluation of a degree of importance of line
segments contiguous to a particular line segment being evaluated.

319. (new) The apparatus of claim 287, wherein said
reconfiguring said framework comprises using a new vertex to
replace a previous vertex located at an end of said unnecessary,
removed line segment.

320. (new) A medium for storing image data for approximating
an image by decreasing an amount of said image data used to
create the image, wherein said image data defines a polygonal
framework, said framework being composed of line segments drawn
between vertices, said medium comprising:
    a memory unit for storing said image data, wherein said
image data stored onto said memory unit are generated by:
        evaluating a degree of importance of each line segment
of said framework;
        removing at least one unnecessary line segment from
said framework which is identified based on said evaluation of
said degree of importance of each line segment; and
        determining a position of a vertex after said
unnecessary line segment is removed.

321. (new) The medium of claim 320, wherein said image data
defines a 3-dimensional polygonal framework.

322. (new) The medium of claim 320, wherein said evaluating
a degree of importance of each line segment is performed by

evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

323. (new) The medium of claim 322, wherein said evaluating a degree of importance of each line segment further comprises assigning a line segment a degree of importance in direct proportion to the amount of volume change caused by removal of that line segment.

324. (new) The medium of claim 320, wherein said evaluating a degree of importance of each line segment is performed using a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework wherein said particular line segment is a side of said polygon, and a vector (N) normal to a plane of said polygon.

325. (new) The medium of claim 324, wherein said evaluating a degree of importance of each line segment further comprises calculating an importance of a particular line segment by $(N \bullet E) \times A$, wherein E is said vector representing a particular line segment, A is said area of a polygon sided by said particular line segment, and N is said normal vector.

326. (new) The medium of claim 320, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an area of said polygonal framework defined by said image data is changed by removal of a particular line segment.

327. (new) The medium of claim 326, wherein said evaluating a degree of importance of each line segment further comprises assigning a degree of importance to a particular line segment in

direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

328. (new) The medium of claim 320, wherein said evaluating a degree of importance of each line segment is performed based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

329. (new) The medium of claim 328, wherein said evaluating a degree of importance of each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein "$|E|$" is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

330. (new) The medium of claim 320, wherein said evaluating a degree of importance of each line segment is performed based on a length of said line segments.

331. (new) The medium of claim 330, wherein said evaluating a degree of importance of said line segments further comprises assigning a degree of importance to each line segment in direct proportion to a length of that line segment.

332. (new) The medium of claim 320, wherein if two or more line segments are assigned an identical degree of importance, a lowest degree of importance among said two or more line segments is assigned to that line segment of said two or more line segments with a shortest length.

333. (new) The medium of claim 320, further comprising repeating said evaluating a degree of importance of each line segment; said removing an unnecessary line segment; and said

determining a position of a vertex after said unnecessary line segment is removed.

334. (new) The medium of claim 320, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an amount of said image data is changed by removal of a particular line segment.

335. (new) The medium of claim 320, wherein said evaluating a degree of importance of each line segment is performed based on importance values assigned by a user to one or more of said line segments.

336. (new) The medium of claim 335, further comprising specifying one or more of said line segments as of high importance, wherein said evaluating a degree of importance of each line segment further comprises preventing said one or more high importance line segments from being designated as said unnecessary line segment.

337. (new) The medium of claim 320, wherein said determining a position of a vertex after said unnecessary line segment is removed comprises positioning said vertex at said position such that a total loss of area between a framework including said unnecessary line segment and a framework in which said unnecessary line segment is removed is minimized.

338. (new) The medium of claim 320, wherein said determining a position of a vertex after said unnecessary line segment is removed comprises positioning a vertex at a position such that a loss of area to said framework caused by removal of said unnecessary line segment is approximately equal for portions of said framework on opposite sides of said vertex.

339. (new) The medium of claim 320, wherein said determining
a position of a vertex after said unnecessary line segment is
removed comprises positioning said vertex at a position
corresponding to an end of said removed unnecessary line segment.

340. (new) The medium of claim 320, wherein an intermediate
configuration of said image data is generated by decreasing a
length of said unnecessary line segment prior to said removing
said unnecessary line segment.

341. (new) The medium of claim 320, wherein an intermediate
polygonal framework is generated between an original framework
including said unnecessary line segment and a new framework with
said unnecessary line segment removed.

342. (new) The medium of claim 341, wherein said generating
an intermediate framework comprises locating a vertex an a
position intermediate to a vertex position in said original
framework and a vertex position determined in said determining a
position of a vertex after said unnecessary line segment is
removed.

343. (new) The medium of claim 342, wherein said locating a
vertex at an intermediate position comprises using a linear
interpolation on said vertex position in said original framework
and said vertex position determined in said determining a
position of a vertex after said unnecessary line segment is
removed.

344. (new) The medium of claim 320, further comprising
reconfiguring a texture applied to said framework to account for
said removing of said unnecessary line segment.

345. (new) The medium of claim 320, wherein said evaluation of a degree of importance of each line segment is based in part on an evaluation of the degree of importance of line segments contiguous to a particular line segment being evaluated.

346. (new) The medium of claim 320, further comprising reconfiguring said framework after said unnecessary line segment has been removed by placing a new vertex at said position identified in said determining a position of a vertex.

347. (new) The medium of claim 346, wherein said reconfiguring comprises using said new vertex to replace a previous vertex located at an end of said unnecessary, removed line segment.

348. (new) A medium for storing image data for approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework, said framework being composed of line segments drawn between vertices, said medium comprising:

a memory unit for storing said image data, wherein said image data stored onto said memory unit are generated by:

assigning an importance value to each line segment of said framework;

removing from said framework that line segment having a lowest importance value; and

reconfiguring said framework to account for said removal of said line segment having said lowest importance value.

349. (new) The medium of claim 348, wherein said reconfiguring further comprises replacing two vertices of said framework, between which said removed line segment had been connected, with a single new vertex.

350. (new) The medium of claim 348, wherein said image data defines a 3-dimensional polygonal framework.

351. (new) The medium of claim 348, wherein said assigning an importance value to each line segment is performed by evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

352. (new) The medium of claim 351, wherein said assigning an importance value to each line segment further comprises assigning a line segment an importance value in direct proportion to the amount of volume change caused by removal of that line segment.

353. (new) The medium of claim 348, wherein said assigning an importance value to each line segment is performed using a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework, wherein said particular line segment is a side of said polygon, and a vector (N) normal to a plane of said polygon.

354. (new) The medium of claim 353,
wherein said assigning an importance value to each line segment further comprises calculating an importance of a particular line segment by $(N \bullet E) \times A$,
wherein E is said vector representing a particular line segment, A is said area of a polygon sided by said particular line segment, and N is said normal vector.

355. (new) The medium of claim 348, wherein said assigning an importance value to each line segment is performed based on an amount by which an area of said polygonal framework defined by

said image data is changed by removal of a particular line segment.

356. (new) The medium of claim 355, wherein said assigning an importance value to each line segment further comprises assigning an importance value to a particular line segment in direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

357. (new) The medium of claim 348, wherein said assigning an importance value to each line segment is performed based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

358. (new) The medium of claim 357, wherein said assigning an importance value to each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein "$|E|$" is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

359. (new) The medium of claim 348, wherein said assigning an importance value to each line segment is performed based on a length of said line segments.

360. (new) The medium of claim 359, wherein said assigning an importance value to each of said line segments further comprises assigning an importance value to each line segment in direct proportion to a length of that line segment.

361. (new) The medium of claim 348, wherein if two or more line segments are assigned an identical degree of importance, a lowest degree of importance is assigned among said two or more

line segments to that line segment of said two or more line
segments with a shortest length.

362. (new) The medium of claim 348, further comprising
repeating said steps of assigning an importance value to each
line segment; removing that line segment with the lowest
importance value; and reconfiguring said framework.

363. (new) The medium of claim 348, wherein said assigning
an importance value to each line segment is performed based on an
amount by which an amount of said image data is changed by
removal of a particular line segment.

364. (new) The medium of claim 348, wherein said assigning
an importance value to each line segment is performed based on
importance values assigned by a user to one or more of said line
segments.

365. (new) The medium of claim 364, further comprising
specifying one or more of said line segments as of high
importance, wherein assigning an importance value to each line
segment further comprises preventing said one or more high
importance line segments from being removed.

366. (new) The medium of claim 348, wherein said
reconfiguring comprises positioning a new vertex at a position
such that a total loss of area between a framework including said
line segment having said lowest importance value and a framework
comprising said new vertex and in which said lowest-importance-
value line segment is removed is minimized.

367. (new) The medium of claim 348, wherein said
reconfiguring comprises positioning a vertex at a position such
that a loss of area to said framework caused by removal of said

lowest-importance-value line segment is approximately equal for portions of said framework on opposite sides of said vertex.

368. (new) The medium of claim 348, wherein said reconfiguring comprises positioning a vertex at a position corresponding to an end of said removed lowest-importance-value line segment.

369. (new) The medium of claim 348, wherein an intermediate configuration of said image data is generated by decreasing a length of said lowest-importance-value line segment prior to said removing said lowest-importance-value line segment.

370. (new) The medium of claim 348, wherein an intermediate polygonal framework is generated between an original framework including said lowest-importance-value line segment and a new reconfigured framework with said lowest-importance-value line segment removed.

371. (new) The medium of claim 341, wherein said generating an intermediate framework comprises locating a vertex an a position intermediate to a vertex position in said original framework and a new vertex position determined in said reconfiguring.

372. (new) The medium of claim 371, wherein said locating a vertex at an intermediate position comprises using a linear interpolation on said vertex position in said original framework and said new vertex position determined in said reconfiguring.

373. (new) The medium of claim 348, wherein a texture applied to said framework is reconfigured to account for said removing of said lowest-importance-value line segment.

374. (new) The medium of claim 348, wherein said assigning an importance value to each line segment is done in accordance with an assigned importance value of line segments contiguous to a particular line segment being evaluated.

375. (new) The medium of claim 348, wherein said reconfiguring comprises using a new vertex to replace a previous vertex located at an end of said removed, lowest-importance-value line segment.

376. (new) A medium for storing image data for approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework formed of polygons to which textures or pictures are applied, said polygons of said framework being composed of line segments connected between vertices, said medium comprising:

a memory unit for storing said image data, wherein said image data stored onto said memory unit are generated by:

evaluating a degree of importance of each line segment of said framework;

removing an unnecessary line segment identified by said evaluating a degree of importance of each line segment;

reconfiguring said framework to account for said removal of said line segment; and

reconfiguring said textures or pictures applied to said framework to account for said removal of said line segment.

377. (new) The medium of claim 376, wherein said reconfiguring the textures or pictures applied to the framework is preformed altering an association between a vertex of said unnecessary line segment and any of said textures or pictures.

378. (new) The medium of claim 376, wherein:

said reconfiguring of said framework comprises replacing two vertices of said framework, between which said unnecessary, removed line segment had been connected, with a single new vertex; and

said reconfiguring the textures or pictures applied to the framework comprises determining a new position on said textures or pictures corresponding to a position of said single new vertex in said framework.

379. (new) The medium of claim 378, wherein said reconfiguring of said textures or pictures applied to the framework comprises determining said new position by interpolation between two points on the textures or pictures which correspond to the unnecessary line segment.

380. (new) The medium of claim 379, wherein said interpolation is a linear interpolation.

381. (new) The medium of claim 376, wherein said evaluating a degree of importance of each line segment of said framework further comprises preventing any line segment existing on an outline of any of said textures or pictures from being designated as said unnecessary line segment.

382. (new) The medium of claim 376, wherein said evaluating a degree of importance of each line segment of said framework further comprises preventing any line segment, which exists on an outline of any of said textures or pictures from being designated as said unnecessary line segment if a change in an area of said texture or picture resulting from removal of that line segment exceeds a predetermined value.

383. (new) The medium of claim 382, wherein said area change amount after the line segment removal is obtained on the basis of

a calculation of sum of results of an equation $|(N\bullet E)\times L|$ at line
segments corresponding to the boundary lines of the texture or
picture existing before and after the line segment to be removed,
wherein "E" is representing that line segment, "L" is a length of
line segment corresponding to the boundary lines of the texture
or picture, "N" is a normal vector of said line segments, "$\bullet$" is
a inner product, and "$\times$" is a product.

384. (new) The medium of claim 376, wherein said image data
defines a 3-dimensional polygonal framework.

385. (new) The medium of claim 376, wherein said evaluating
a degree of importance of each line segment is performed by
evaluating an amount by which a volume of the polygonal framework
defined by the image data is changed by removal of a particular
line segment.

386. (new) The medium of claim 385, wherein said evaluating
a degree of importance of each line segment further comprises
assigning a line segment a degree of importance in direct
proportion to the amount of volume change caused by removal of
that line segment.

387. (new) The medium of claim 376, wherein said evaluating
a degree of importance of each line segment is performed using a
vector (E) which represents a particular line segment, an area
(A) of a polygon within said polygonal framework wherein said
particular line segment is a side of said polygon, and a vector
(N) normal to a plane of said polygon.

388. (new) The medium of claim 387,

wherein said evaluating a degree of importance of each line segment further comprises calculating an importance of a particular line segment by $(N \bullet E) \times A$,

wherein E is said vector representing a particular line segment, A is said area of a polygon sided by said particular line segment, and N is said normal vector.

389. (new) The medium of claim 376, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an area of said polygonal framework defined by said image data is changed by removal of a particular line segment.

390. (new) The medium of claim 389, wherein said evaluating a degree of importance of each line segment further comprises assigning a degree of importance to a particular line segment in direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

391. (new) The medium of claim 376, wherein said evaluating a degree of importance of each line segment is performed based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

392. (new) The medium of claim 391, wherein said evaluating a degree of importance of each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein "$|E|$" is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

393. (new) The medium of claim 376, wherein said evaluating a degree of importance of each line segment is performed based on a length of said line segments.

394. (new) The medium of claim 393, wherein said evaluating a degree of importance of said line segments further comprises assigning a degree of importance to each line segment in direct proportion to a length of that line segment.

395. (new) The medium of claim 376, wherein if two or more line segments are assigned an identical degree of importance, a lowest degree of importance is assigned among said two or more line segments to that line segment of said two or more line segments with a shortest length.

396. (new) The medium of claim 376, further comprising repeating said steps of evaluating a degree of importance of each line segment; removing an unnecessary line segment; reconfiguring said framework; and reconfiguring said textures or pictures.

397. (new) The medium of claim 376, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an amount of said image data is changed by removal of a particular line segment.

398. (new) The medium of claim 376, wherein said evaluating a degree of importance of each line segment is performed based on importance values assigned by a user to one or more of said line segments.

399. (new) The medium of claim 398, one or more of said line segments is specified as of high importance, wherein said evaluating a degree of importance of each line segment further

comprises preventing said one or more high importance line segments from being designated as said unnecessary line segment.

400. (new) The medium of claim 376, wherein said reconfiguring said framework comprises positioning a vertex at a position such that a total loss of area between a framework including said unnecessary line and a framework in which said unnecessary line segment is removed is minimized.

401. (new) The medium of claim 376, wherein said reconfiguring said framework comprises positioning a vertex at a position such that a loss of area to said framework caused by removal of said unnecessary line segment is approximately equal for portions of said framework on opposite sides of said vertex.

402. (new) The medium of claim 376, wherein said reconfiguring said framework comprises positioning a new vertex at a position corresponding to an end of said removed unnecessary line segment.

403. (new) The medium of claim 376, wherein an intermediate configuration of said image data is generated by decreasing a length of said unnecessary line segment prior to said removing said unnecessary line segment.

404. (new) The medium of claim 376, wherein an intermediate polygonal framework between an original framework is generated to include said unnecessary line segment and a new framework with said unnecessary line segment removed.

405. (new) The medium of claim 404, wherein said generating an intermediate framework comprises locating a vertex an a position intermediate to a vertex position in said original framework and a vertex position determined in said determining a

position of a vertex after said unnecessary line segment is removed.

406. (new) The medium of claim 405, wherein said locating a vertex at an intermediate position comprises using a linear interpolation on said vertex position in said original framework and said vertex position determined in said determining a position of a vertex after said unnecessary line segment is removed.

407. (new) The medium of claim 376, wherein said evaluating a degree of importance of each line segment is based in part on an evaluation of a degree of importance of line segments contiguous to a particular line segment being evaluated.

408. (new) The medium of claim 376, wherein said reconfiguring said framework comprises using a new vertex to replace a previous vertex located at an end of said unnecessary, removed line segment.